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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,376	03/26/2004	Olav Lysne	1380-0191PUS2	7638
2292 7590 07/17/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER PATEL, CHANDRAHAS B	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 07/17/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/809,376

Applicant(s)

LYSNE ET AL.

Examiner

Chandrabhas Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/8/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A computer program carried by a propagated signal is non-statutory because the program on a propagated signal is a temporary burst of information, which is only there until the device receives the information, thus is intangible which renders the claim non-statutory [See MPEP 2106.01].

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 8-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Khosravi et al. (USPN 7,200,146).

Regarding claim 1, Khosravi teaches method for deadlock free altering of a network routing from a first routing function R_{old} , defining an established connection between a plurality of communication input ports I_1, \dots, I_n and output ports O_1, \dots, O_m , in a network element, to a second routing function R_{new} , defining a new connection between the input and output ports, for

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execution by the network element for transmitting and receiving data packets [Col. 8, lines 31-33, Fig. 6], the method comprising: (1) for each input port I_i , performing the following steps: (1a) applying the first routing function R_{old} for the input port [Col. 7, lines 53-55], (1b) receiving a token on an input port I_i [Col. 8, lines 16-18, **update message is the token**], (1c) applying the second routing function R_{new} for the input port I_i [Col. 8, lines 34-38], (1d) forwarding data packets to every Output port O_j associated with the input port I_i according to the second routing function R_{new} , provided that the output port O_j has transmitted the token [Col. 9, lines 39-44], (2) for each output port O_j , performing the following steps; (2a) determining if the token has been received on all input ports associated with the output port O_j according to the first routing function R_{old} [Fig. 8, Col. 9, lines 31-44], (2b) transmitting the token on the output port O_j when the token has been received on all input ports [Fig. 9, Col. 9, lines 51-56].

Regarding claim 2, Khosravi teaches the network element is a switch [Fig. 10, 1025].

Regarding claim 3, Khosravi teaches the token is included in a data packet [Col. 8, lines 19-23, **message generated by routers are in a data packet**].

Regarding claim 4, Khosravi teaches the method is applied to deterministic routing functions [Col. 8, lines 17-19].

Regarding claim 5, Khosravi the method is applied to adaptive routing functions [Col. 8, lines 23-28, **OSPF is adaptive routing function as routes can change depending on available shortest path**].

Regarding claim 6, Khosravi teaches the method is applied to source routing [Col. 8, lines 7-12, **applicant describes source routing as per packet routing which is taught by reference**].

Regarding claim 8, Khosravi teaches the method is applied to only parts of a complete network [Col. 8, lines 39-41].

Regarding claim 9, Khosravi teaches network element [Fig. 10, 1010], comprising a plurality of output ports for transmitting data packets to other network elements in a network [Fig. 10, Ports 1-6], a plurality of input ports for receiving data packets from other network elements in the network [Fig. 10, Ports 1-6], a processing device [Fig. 10, 1025], a memory, characterized in that the processing device is arranged to perform a method claim 1 [Col. 11, lines 9-13].

Regarding claim 10, Khosravi teaches routing functions are implemented as table stored in memory [Fig. 10, 1027].

Regarding claim 11, Khosravi teaches memory comprises computer program instructions arranged to perform the method when executed by the processing device [Col. 11, lines 9-13].

Regarding claim 12, Khosravi teaches the computer network system comprising a number of network elements according to claim 9 [Fig. 10].

Regarding claim 13, Khosravi teaches computer program, embodied on a storage medium or in a memory, or carried by a propagated signal [Col. 10, lines 11-15], for execution by a processing device in a network element [Col. 11, lines 9-13], characterized in that the program comprises a set of instructions arranged to perform a method according to claim 1 when executed by the processing device in the network element [Col. 11, lines 14-19].

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Khosravi et al. (USPN 7,200,146) in view of Oprescu (USPN 5,784,557).

Regarding claim 7, Khosravi teaches a method as discussed in rejection of claim 5.

However, Khosravi does not teach reducing the cyclic dependency graph to non-cyclic graph.

Oprescu teaches reducing the cyclic dependency graph to non-cyclic graph [**Abstract**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reduce the cyclic dependency graph to non-cyclic graph so that a direction for the data packet can be established [**Col. 6, lines 44-48**].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandahas Patel whose telephone number is 571-270-1211. The examiner can normally be reached on Monday through Thursday 7:30 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CBP


RICKY Q. NGO
SUPERVISORY PATENT EXAMINER